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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,774	08/15/2002	Andrew L. Kurkjian	20.2792	2568

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EXAMINER

POLITZER, JAY L

ART UNIT PAPER NUMBER

2856

DATE MAILED: 08/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

10/064,774

Applicant(s)

KURKJIAN ET AL.

Examiner

Jay L Politzer

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-65 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-65 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2-4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Serial Number: 10/064,774

Art Unit: 2856

Title: METHOD AND APPARATUS FOR DETERMINING DOWNHOLE
PRESSURES DURING A DRILLING OPERATION

Filed: 8/15/02

Inventor(s): Kurkjian et al

DETAILED ACTION

REJECTIONS OVER PRIOR ART UNDER 35 U.S.C. § 102:

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

"A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States."

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 1, 2, 8, 9, 10, 11, 12, 13, 14, 16, 22, 23, 24, 25, 26, 27, 28, 30, 32, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48 and 59 are rejected under 35 U.S.C. § 102(e) as being anticipated by Meister et al, hereinafter Meister.

Regarding Claims 1, 16, 30 and 45-47; in FIGs 1 and 3, Meister teaches a tool for measuring down hole pressures with a pressure equalizing system comprising: a piston cylinder 308 that contains drilling mud 326, in one configuration, in a draw reservoir 322 for operating a draw piston 236 hydraulic reservoirs are preferably balanced to hydrostatic pressure of the annulus for consistent operation. In Fig 5, formation

fluid, 502, is balanced by mud pressure in 328, and pressure measured by sensor 320.

Regarding Claims 2, 32, 48 and 59; the first passage is 246, the second passage is 316 and/or 326, and the pistons comprise a valve arrangement.

Regarding Claims 8, 22, and 37; depending upon definition, chambers 324 and 322 constitute variable volume pressure and buffer chambers.

Regarding Claims 9, 23 and 38; see Meister, ¶ 41.

Regarding Claim 10, 13, 24, 27, 39 and 42; there are two sliding pistons, 236, and 222, and open and closed are defined with respect to ports 312, 314, and two ports 328.

Regarding Claims 11-12, 25-26 and 40-41; in Fig 8, the gauge is in contact with annulus 228, filled with formation fluid and registers formation pressure which is also annulus pressure.

Regarding Claims 14, 28 and 44; see check valve 602 in Fig 5.

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REJECTIONS OVER PRIOR ART UNDER 35 U.S.C. § 103:

3. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

"A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person."

4. Claims 3-7, 17-21, 32-36, 49 and 60 are rejected under 35 U.S.C. § 103 as being unpatentable over Meister as applied to claim 2, above, in view of Hancock et al, hereinafter Hancock.

Regarding Claims 3-5, 17-19, 32-34, 49 and 60; Meister fails to teach a filter but does acknowledge that clogging can be a problem in ¶ 12. Hancock uses a ceramic filter to solve this problem in Col 4, Li 1-6, wherein the placement is obvious. It would have been obvious to one of ordinary skill in the art at the time of the invention to employ a Hancock filter to prevent clogging in Meister as this is a recognized problem.

Regarding Claims 6, 20 and 36; Meister teaches a probe extendable from an attachment to the BHA.

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Regarding Claims 7, 21 and 35; Meister fails to teach a wear band, stabilizer, or under reamer. It would have been obvious to one of ordinary skill in the art at the time of the invention to mount the invention in any convenient location and Meister's location is equivalent to mounting on wear band, stabilizer, or under reamer.

5. Claims 15, 29, 50-58, and 61-65 are rejected under 35 U.S.C. § 103 as being unpatentable over Meister.

Regarding Claim 15, 29 and 58; Meister fails to teach a spring, but does teach two reservoirs, 322 and 324 one of which acts as a spring against the other. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide springs instead of the two reservoir arrangement as these are equivalent.

Regarding Claims 50-51, 56 and 61; open and closed are a matter of definition. Meister obviously measures while the drill is moving or not moving, see ¶ 15.

Regarding Claim 52; in Fig 8, the gauge is in contact with annulus 228, filled with formation fluid and registers formation pressure which is also annulus pressure.

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Regarding Claims 53, 55-57 and 62-65; see Fig 2, and pressure sensor 320.

Regarding Claim 54; Meister fails to teach scraping but does teach repeated flushing. It would have been obvious to one of ordinary skill in the art at the time of the invention to scrape, flush, or penetrate the mud-cake as these are all equivalent steps.

DESCRIPTION OF UNAPPLIED ART:

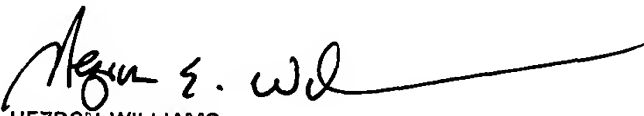
6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure because it teaches other aspects of the claimed invention.

INQUIRIES:

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Jay L. Politzer whose telephone number is (703) 305-4930 and whose facsimile number is (703) 308-7382
8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Hezron E. Williams, can be reached at (703) 305-4705.
9. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4900.

jlp 6/26/03

72P


HEZRON WILLIAMS
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